Collection no. 189

GLAMIS

Key, Balderson, + Freeman

DUPLICATE

CARBON BOOK

(Octavo Size)

Cape Peninsula, N.T.

100 Leaves in Duplicate

15 – 24. V. 1975

NUMBERED

Flexiflat

THERMO–PLASTIC BOUND

Collection no. 189 — Cove Peninsula, N.T.

Key, Balderson, & Freeman

15–24.V.1975

All odometer readings

15/5 Plants det. M. Bazaricides, R. Hoogland (Hibbertia) in Rm.

11020.5 Nhulunbuy motel. Took road to airport.

11024.8 Gentle undulations. Brown soil with laterite gravel. Open euc. forest. Two spp. eucs (spec) to 50ft, one a bloodwood, both rough to apex. Acacia spp (3, phyllod.) to 5ft, Calytrix sp. P70, Spectrifoma transversa, Hostella sp. P208. papilionaceous spiny shrub (as Petaloida camp) to 4ft, ~~Helipte~~, Hibbertia spp. (2) to 2ft, a ~~fern plant~~ to 18in (spec) grasses along road.

Rectitropis sp. Gonioaea vocans, Austracris basalis, Macrotona sp. 12, Goniaeoidea sp. 3, Heteropternis obscurella, Macrozolota sp. 2, Xanterriana concolor, Genus nov. 105 sp. 1 (j.), Erythropomala amoena (j.), Macrocara angiobata, Gastrimargus musicus, Abletia rufescens, Bundinja sp. P70, Hibbertia dialbata (DC.) Benth., H. lepidota D.C. Boronia ?artemisifolia F. Muell., mainly

16/5

11029.1 Nhulunbuy motel.

Mt. Saunders. 70m. Flat-topped hill with massive laterite. Rough-barked euc, slender, to 25ft, with Acacia spp. (phyllodinous) to 12ft, miscellaneous broad-leafed shrubs to 4ft & scramblers. Acacia coriacea, Austracris guttulosa, Rectitropis sp., Bundinja sp. P70 Dec. palms to 6ft, mixed grasses to 3ft. Zash. Morakinne on Acacia sp.

Goniaeoidea sp. 3, Stenocatantops angustifrons, S. vitripennis, Xanterriana concolor, Caledia (2) captiva, Aiolopus thalassinus, Heteropternis obscurella, Tolgadia inferna, Gonioaea vocans.

11036.9 Motel (miles wasted)

Erythropamala amaena, Genus nov. 28 sp. 1, Equaloidea sp. 3, Xanthoria coneslot, Austracris basalis, Macrozelota sp. 2, Gonioma vocans, Daperia accola, Adlappa erythroptera, Ablectia rufescens, Bundinja sp. P70, Spectrifopma haiseaersa Pandanus. 02

11041.2 = 11024.8. Daperia associated with

042.0. Road off to left.

043.3. Road off to left.

047.0. Road off to left to Gun Club.

048.8. Road off to left to Yirrkala & to right.

049.7. Crossed conveyor belt. Mine on left.

052.1. Airport entrance on right.

054.9. Sharp bend to R.

058.9. Flat adjacent to small creek (Latram River).
Stenocatantops intripennis, Calidia capsiva, Brown soil. E. ? Tetrodonta, occ. E. Rectitropis sp.
mencata to 70 ft. Acacia spp. phyllod.
(2) to 20 ft, occ. palms, occ. pandanus, occ. Hibbertia to 1 ft, grasses abundant to 5 ft.

061.1. Track off to L.

065.2. Spur on L.

066.0. Dhupuma College.

066.1. Turned left

067.4. Edge of laterite scarp with view over to sand dunes & sea. Flat, pale

Heteropternis obscurella, Sterocatantopsis
brown soil with lateritic gravel. E.
nitripennis, Acridae, open conca, phyllod
? tetrodonta to 30ft, with Acacia spp. h
Eastmaroqus musicus, Austracris basalis,
to 15ft. + Erythrophleum regrowth to 5ft.
A. sp. 2, Monaca volcans, Caledid captiva,
Patches of Melaleuca sp. to 15ft + regrowth.
Lanternaria concolor, Acolopus thalassinus,
Tall (to 4ft) + short grasses, occ.
Spectriforma transversa, Hastella sp. P208
Hibbertia sp. to 1ft + occ. other shrubs
to 3ft. Return.

068.7 Back on main road. Turned L.

069.9. Fork. Kept R.

071.2. End of road. Lateritic Scarp overlooking
Adlappa erythropteta, Tolgadia inferma,
sand-dunes + sea. E. tetrodonta to
Spectriforma transversa
30ft, with Acacia spp. & other small
trees to 15ft. Erythrophleum regrowth to
4ft. grass. occ. Hibbertia + forbs.
Return.

17/5.
am.
Beach dunes & adjacent swamp SE of
hotel. (1) Broad-leafed low trees + shrubs
Elaeodendron melanocarpum F. Muell.
(Celastraceae), Celtis philippensis Blanco (Ulmaceae),
on white sand at steep fall to beach.
Diospiros calycantha O. Schwartz (Ebenaceae),
Valanga (3 spp) basking on these at
Drypetes australasica (Muell. Arg.) Pax + Hoffm.
0830 – 0900 hr, easily caught by hand or
Valanga meleager, V. sp. 1, V. irregularis
net. By 0930 more active: diving

into vegetation. (2) Nearer to sea, on
Austrocnis basalis, Genus nov. 70 sp. 1, Daperia
white sand flats. Casuarina sp. to
accola
25ft with coarse tussock grasses, forbs,
occ. Pandanus + broad-leaved shrub.
trailing Ipomoea + other trailers, &
Stenocatantops angustifrons S.
vitripennis, Pyarostictus striatus,
Aiolopus, Gomacoidea sp. + Gen. nov. 70(?).
Daperia associates with Pandanus.

Arthrocnemum sp.
(3) Samphire to 3ft on pale sandy mud,
Genus nov. 67 sp. 1
wet, with numerous crabs, passing
into mangroves lining estuary.

(4) Swampy area with Melaleuca
Gomacoidea sp. 3, Cantheriana concolor, Genus
sp. to 20ft, Pandanus to 15ft +
nov. 70 sp. 1, Tolgadia bivittata, Daperia
regrowth, occ. Phyllodineous Acacia
accola, Rectitropis sp., Acrida sieb., conica,
sp. to 10ft, mixed grasses + sedges
Caledia captiva, pack of Blundunya sp. P70, Hastella
to 4ft — ~~[illegible]~~ beach. Tolgadia
sp. P208 Daperia sp.,
sp., ~~Pelmanus sp.~~ Stenocatantops
vitripennis. Marabine on Acacia.

pm. (5) Billabong margin + dune complex
Gomacoidea sp. 3, Genus nov. 70 sp. 1, Atractomorpha
behind + N of hotel. Melaleuca to 40ft
similis, Tolgadia inferma, Acrida conica,
along billabong, with hippophaeis
Rectitropis sp., Valanga sp. 1, Zapechtia sp. 1,
grasses, sedges, + forbs + wet sand +
Aiolopus thalassinus, Paratettix nigrescens

mud along water's edge. Patches of dense dune trees & shrubs, including Ficus spp., becoming larger & more frequent northwards. Seaward dunes with Casuarina to 30ft. Grasses including Spinifex sp., & forbs, much bare sand. Tetragonia & Arctotheca fringing water.

18/5.

11106.4. Hotel.

109.7. Sewage treatment works. Return.

110.3. Margin of sandy swamp. A bloodwood Oxya japonica, Heteropteris glabrescens, & very broad oblong-leafed euc. with Rhetinopis sp., Macrotara longbotana, Zoniacordea Melaleuca spp. all to 40ft. Acacia spp. sp. 3, Scaevola cunicolor, Hypochaeris sp. 1, to 20ft & regrowth, Pandanus sp. to 15ft. Spenbeatanthop. vitripennis, S. Rieu, Caledia Grasses mixed 1–4ft, occ. forbs. Also Captiva, Aciolopus thalassinus, Dampiera arcola, a former gravel dump with short grass Arctotheca similis, Bundinga sp. P70, Spectrifome & bare gravelly ground. Gastr., Austr. basal, transversa Caledia, Denda, Austr. gutt.

11110.6 Back on bitumen. Turned R.

11111.1. Turned R.

11112.2 End of road at Golf Club. Beige sand hills, very jumbled. Sparse grasses,

Sorghum stipoideum (Ewart & White) Gardn. & Hubb. 66
(spec. ? : moralnes on this)
to 2ft. pink forb to 1ft. bare sand.
Genus nov. 70 sp. 1, Lyperchia sp. 1, Xanthorriana
Patches of mixed broad-leafed shrubs &
concolor, Pyenostichus senatus, Acrida conica,
small trees, occ. Acacia & oblong-leafed
Adlappa erythroptera, Hastella sp. P208, Spectriforma transversa
occ. at landward margins. Return.

11116.3. Hotel.

11118.2 Airport intersection. Turned R.

11119.7. Road off to L.

11124.6. Water on L.

11126.7. Crossed conveyor belt.

11128.9. End of road at treatment plant.

Return.

11131.1. Turned R.

11135.9. Drimmie Hill & adjacent sand flat.
Gonioordea sp. 3, Tolgadia, inferma, Genus
The hill has massive granite outcropping
nov. 70 sp. 1, Genus nov. 98 sp. 1, Abaitoropha
& bears monsoon forest to 30ft & open
similis, Daperria actola, Spectriforma transversa,
patches of grass to 6ft. Lower area
Hastella sp. P208
with grass & forbs to 2½ft under occ.
Casuarina & occ. Pandanus. Cockroaches
& earwigs in Pandanus. Moralnes mainly
on a dense patch of leguminous forbs to
1ft on sand flat. Return.

19/5.

11151.2 Hotel.

179.9. Dhupuma. Turner R.

187.1. Flat with beige sand & sparse laterite nodules on underlying massive laterite. E. tetrodonta, fairly dense, to 60ft, with Livistona dense to 8ft, occ. Brackeia sp. & Grevillea sp. to 8ft, a very fine-phyllode Acacia to 1ft abundant, Hibbertia spp. (2) to 1ft, other forbs occ., grasses 1–6ft frequent, v. occ. Calytrix to 4ft.

Genus nov. 98 sp. 1, Genus nov. 105 sp., Rhetinopsis sp., Canthernaria concolor, Genus nov. 70 sp. 1, Dappera acicola, Gonioalcoka sp. 3, Genus nov. 61 sp. 2, Macrotona sp. 12, Gonioaea vocans, Acacia gonocarpa F. Muell. Dysphania dealbata (DC.) Benth., Hibbertia lepidota DC. Bundinja sp. P76, Spectrifoma transversa

190.5. Slopes with a complete cover of coarse laterite gravel & occ. rocks. E. tetrodonta to 60ft fairly dense, with Livistona to 5ft, Acacia sp. to 10ft, Acacia sp. with small phyllodes (1cm) to 4ft, Hibbertia spp., other small shrubs & forbs, scattered grasses 1–4ft, some bare ground.

Gonioaea vocans, Macrocarpa conglobata, Gonioaeola sp. 3, Canthernaria concolor, Rhetinopsis sp., Bundinja sp. P76, Hibbertia dealbata (DC.), H. lepidota DC.

194.7 First crossing, Giddy R.

194.9 Road off to L.

195.1. Main Gidley crossing.

198.8 Track off to L.

210.6. Slight slope with brown soil
Maclyptria sp. 1, Rhetitropis sp., Xanthorriaria
densely covered with lateritic pebbles.
concolor, Gonioacoidea sp. 3, Stenocatantopsis
E. tetrodonta fairly dense to 50ft, with
nitrifennis, Gonioacea vocans, Stenocatantopsis
occ. Erythrophleum to 25ft, occ. sessile-
Eucalyptus setosa Schau. angustifolius,
leafed bloodwood (occ.) to 15ft, Livistona
Adlappa erythroptera, Bundinja sp. P70,
to 5ft abundant, occ. Pandanus regrowth,
Spectrifoma transversa, Stenocatantopsis Kry.
broad-phyllode Acacia to 6ft (mistake on
this), Hibbertia spp. to 1ft, other forbs occ.,
Maclyptria on short grass.
mixed grasses 9in to 6ft. Return.

211.2. Edge of scarp. Undulating stony
Gonioacoidea sp. 3, Xanthorriana concolor,
laterite. E. tetrodonta to 50ft fairly dense,
Rhetitropis sp., Hastella sp. P208, Bundinja sp. P70
with Livistona abundant to 5ft, Acacia
spp. occ., grasses sparse to 1-5ft, forbs
occ., Erythrophleum regrowth occ.

241.0 Ohupelma.

26/5.

11299.5 Hotel.

301.4 Turned L.

302.5. Gentle depression with pale sand.
Melaleuca spp. to 20ft, occ. E. tetrodonta

Genus nov. 70 sp. 1, Xylechia sp. 1, Macrotona sp. 12(?) (j), Xanterriaria concolor, Heteropteris Olsuvelli, Gonioaea occans, + Acacia spp. Dapperia accola, to 40ft, Grevillia sp. to 12ft, Pandanus Aciloplis thalassinus, Tolgadia livittata, at lowest point to 12ft patches round-leafed Kurrajong, patches Calytrix, grass, Genus nov. 98 sp. 1, Caledia capitata, Stenocatantopo nitropennis, Rechtropis sp. 1–4ft, patches open sedge to 10in, occ. Hibbertia dealbata (DC.) Benth. Spectriforma transversa, large-leafed Hibbertia. Return. Hastella sp. P208 Bundinja sp. P70

305.7. Hotel.

307.5. Turned R.

309.2. Gentle undulations on pale sand, Erythropomala amaena, Goniaeoidea sp. 3, occ. with a little lateritic gravel. E. Macrotona sp. 12(?)(j.), Xanterriaria concolor, tetrodonta to 60ft open, with Grevillea + in places Melaleuca spp. Rechtropis sp., sp. to 15ft, occ. Banksia spp. to 8ft. Acacia Genus nov. 98 sp. 1, Genus nov. 105 sp. sp. a other shrubs to 5ft, Hibbertia spp. Spectriforma transversa, Bundinja sp. P70 (3) to 2ft, scattered grasses + sedges to 18in, occ. Livistona to 3ft + occ. Pandanus regrowth, much litter + nymphs some have grown. Genus nov. 106 for finer leafed Hibbertia from 11024.8. Hibbertia lepidota DC.

Gonioaea occans

21/5.

11311.8 Hotel.

3440.7. Dhupuma.

3441.9. Turned L.

Site (6)

11353.4 Near end of road opposite small island. Sandhills & granite outcrops. Aiolopus thalassinus, Xanthorrhoea sp. 1, Acacia sp. 1, Acacia sp. 2 (?) to 1ft, Heteropternis obscurella, Calitriaxis [illegible] occ. Pandanus to 6ft. occ. oblong-leafed [illegible] to 6ft, patches of coastal scrub, mixed tussock grasses to 4ft & low annual grasses to 6in; some Spectriforma transversa forbs & hakeas, incl. Isoetes.

Site 7. Extreme tip of inlet from Dalyup. Adluppa erythroptera, Heteropternis obscurella, Xanthorrhoea sp. 1, Spectriforma sp. 12 (?), Grevillea [illegible], Pandanus sp. 1, Stylidium [illegible], Melaleuca sp. 1, Acacia sp. 1, Acacia sp. 2 (?), Grevillea [illegible] grey swamp with dark mud & water, Xanthorrhoea [illegible], Pandanus to 12 ft & low coarse grasses to 5ft scattered.

Site 8. Gum hills sandhills with Casuarina & small patches coastal scrub. Acacia sp. 1, Acacia sp. 2, Grevillea [illegible], grasses to 2ft, some other grasses, Heteropternis [illegible] with pink flower. Bare sand.

Return.

11354.6 Swampy flat with grey mud. Xanthorrhoea sp. 1, Grevillea sp. 1, Acacia sp. 1, Acacia sp. 2, Pandanus sp. 1, Xanthorrhoea [illegible], Macrozamia sp. 12, Melaleuca sp., all to 15 ft, Spectriforma transversa [illegible] grasses to 1ft, occ. [illegible].

3400.1 Stony resistive slope leading to

[illegible] Sporobolus [illegible] [illegible] E. [illegible] to 60ft., C. [illegible] to 15ft. Acacia op. [illegible] to 20ft, [illegible] op. (2) to 14ft. Melaleuca op. to 2ft + other forbs + shrubs, incl. [illegible] Grevillea. [illegible] grasses.

366.6. Dhufsania.

22/5.

11395.3. Hotel. Took airport road.

405.1. Turned L.

414.2 = 405.1. (more [illegible])

442.1 Inlet NW of Gun Club. Apex of NW-directed promontory. Slightly swampy flat with Melaleuca spp. (2). oblong-[illegible] areas (2). acc. E. papuana, acc. E. tetrodonta, [illegible] E. [illegible] on fringes. Grasses dense to 4ft + patches to 1ft. acc. Pandanus to 7ft. acc. shrubs incl. Lumnitzera.

445.3 Swamp with dark mud, lined with Melaleuca spp + bloodwoods to 30ft. Leads to left. Mainly [illegible] under mangroves, [illegible] Rewards to 12ft + there [illegible] forbs

[illegible] 7 ft. [illegible] with [illegible], spp. [illegible]
[illegible] with low dense bearing
Lagunaria at low density [illegible]
[illegible]

456.0 (miles recorded). Plain in [illegible]
Tock road. No [illegible] present.

462.5 Turned round.

463.5 Margin of inlet with mangroves, Hastella sp. P208
Tolgadia, Willdata, Macropsis, Conidoba,
[illegible] by grasses & sedges [illegible]
E. populnea, Melaleuca [illegible] sp. [illegible] to
[illegible] 7 ft.) [illegible]
[illegible] grass under E. tetrodonta
& Stenocarpus [illegible], Pleiotrix [illegible]

469.0. Plain intersection.

23/5.

11.34-7. Halted.

476.5 Turned to [illegible] Mirkala.

486.0. Mirkala.

489.5 Flat with [illegible] E. tetrodonta
Micropsis obscurella, Macleptrix sp. [illegible]
& E. [illegible] to 60 ft. with [illegible]
[illegible] sp. & other small trees to 15 ft.
[illegible] grasses 1-5 ft.

505.2. Back on main road.

Unexpected. The whole area is Archæan except where the overlay has been carried to expose the underlying granite. Limestones occur on the east coast, on Brumiel Peninsula, & occasionally elsewhere), in the swamps & swampy plains (the largest behind Pirtekaia), & in the deformed condition & complexity of the north & south-east coastlines. The only sign of sandstone was a small area, associated with the granite, constituting the hills & headlands that alternate with sandbanks on the east coast south of Ladywein Bay. All seaports were physically feasible & had little disparaging in the way of flora & none in the way of grass-hippers. It is the absence of sandstone (or quartzite, or conglomerate), and with it of Triodia (essential for roam

possible occurrence on open
low pastures on limestone,
that must be considered as the
responsible for the large difference in
the grasshopper fauna of western
Broadhead and the Gaspé Peninsula,
although the more coastal climate
of the latter may also play a part.

The grassy plain near Hortonia
was unfortunately not visited, but it
is unlikely to be radically different
from similar examples near the
Lake Champlain. Hypoestes floribunda
occurred beneath the edge of the
coastal cedars covering the bank
immediately behind the narrow
lagoon bearing the sandbar
which the Walkerbout Hotel. The
growth was more luxuriant than
in western Broadhead, but the
plants were smaller. No Heterotropha
were seen, but an extensive

search was not made.

Valanga nilagiri & the green Valanga sp. were found only in the coastal scrub behind the hotel. At first it was thought this might be due to our visiting this site early in the morning, when the insects were basking on the outer foliage. However, investigation showed that the number seen (without collecting) on a selected stretch of the scrub increased from 19 at ca. 8 am to 25 at ca. 11 am., & subjective observation suggested that even more could have been counted a couple of hours later. It was possible to collect some 30-50% of those seen, & to repeat this harvest with the same success three or four times at about hourly intervals. Apparently many individuals are deeper in the scrub at any one time. There seemed to be a preference for the lower

5ft or so, + indeed for (of 1-2 m height regrowth) a couple of metres in front of the main face. Some were on the sand among grass in front of the face — apparently more females than males. V. irregularis was less common than the other two, but was seen occasionally at other sites.

Both smaller species were infested with green tracheal mites, which sometimes virtually filled the air sacs + major tracheae, along with numerous translucent white eggs. Infestation was much heavier in males. Two or three recently dead individuals were found. It seems possible that the Valanga populations are subject to drastic crashes due to this parasite, + can build up only in widely separated patches. No particularly sluggish individuals were found,

however. The possibility that the population had been started from eggs introduced with garden plants for the hotel has to be considered. Although none were found in the garden (one irregularis was), the latter is sprayed every few days with some insecticide, presumably for mosquito control. The only unquestionably natural occurrence of meleager & of a green Valanga (same species? — taxonomy unsatisfactory) known to me from personal observation is in the fringes of a deciduous monsoon forest on Mt. White, at Cen. The Kimberley records were presumably associated with cultivation.

The three species of Talgadia showed increasing wet-environment preference in the order inferma, bivittata, sp. 1. Oxya japonica seemed to have a similar preference to T. sp. 1, but usually on shorter grass. Dapsina

was found only in the vicinity of Grandamos, from east to west by dry habitats.

Two species regarded were based on single specimens, more upon very few specimens, & more still upon single localities. All these moralines were taken at various localities, two of them in considerable numbers. It is unlikely that any species of importance escaped detection.

The life-cycle of Lemna nov. sp. is (W. Arthur C.) curious, with nymphs in November & May (W. Arthur & Cook), & adults in March (W. A. Lard). Species differences may possibly lie involved.